

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

R00008AT
Revision 1
Robinson Air Crane Inc.
UH-1F, TH-1F, UH-1P
September 15, 2003

TYPE CERTIFICATE DATA SHEET NO. R00008AT

This data sheet, which is part of Type Certificate No. R00008AT, prescribes conditions and limitations under which the product for which the type certificate was issued, meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Robinson Air Crane, Inc.
14956 South River Drive
Miami, Florida 31167

I. Models UH-1F, UH-1P, TH-1F (Restricted Category Military Surplus), Approved October 5, 1995

Engine: General Electric T-58-GE-3
(See Note 10 regarding helicopter, engines and appliances)

Fuel: MIL-T5624 (JP-4)
MIL-T-5624G (JP-5)
ASTM Type B (Jet B)
ASTM Type A-1 (Jet A-1)
(See Note 12 for alternate fuels.)

Engine Limits:

	Torque Pressure (PSI)	Output Horsepower (HP)	Exhaust Gas Temp. (°C)(T5)	Gas Gen. Speed Ng (%)
Maximum (5 min.)	67	1,100	690	102.5
Maximum Continuous	54	888	635	Limited by E.G.T. (T5)

Refer to Operators Manual USAF Model UH-1F, UH-1P, TH-1F Helicopters, for additional limitation data.

Rotor Limits:

	Power Off (RPM)	Power On (RPM)
Maximum	339	317
Minimum	295	295

Airspeed Limits: V_{ne} (Never Exceed Speed) is 120 knots IAS at a gross weight of 7,000 lbs. or less at sea level standard day. For reduction of V_{ne} with density altitude and gross weight, see USAF T.O. 1H-1(U)F-1. Also see USAF T.O. 1H-1(U)F-1 for additional airspeed limits.

Page No	1	2	3	4	5
Rev No.	1	1	1	1	1

Other Limits:	Flight hours are counted from takeoff to landing The helicopters approved under this type certificate are done so under the concept of limited exposure associated with escape from inadvertent ice encounters, and are prohibited against flight into known icing. The helicopters must be re-evaluated if certification to the General Ice protection Airworthiness Regulations is requested.
Center of Gravity (C.G.) Range:	Longitudinal C.G. Limits: (+127.0) to (+132.0) at 9,000 lbs. (+125.0) to (+135.7) at 7,400 lbs. (+125.0) to (+138.0) at 6,500 lbs. (+130.0) to (+138.0) at 4,500 lbs. Straight line variation between points given above.
Empty Weight (C.G.) Range:	Refer to Operators Manual USAF Model UH-1F, UH-1P, TH-1F Helicopters.
Datum:	Station 0, datum is 7.6 inches, aft of the most forward point of the fuselage nose section. Refer to Operators Manual USAF Model UH-1F, UH-1P, TH-1F Helicopters.
Leveling Means:	Drop plumb bob from "key hole" slot in upper left door sill. Reference to 1H-1(U)F-5. (See Note 1)
Maximum Weight:	9,000 lbs.
Minimum Crew:	1 (Pilot) at + 46.7
No. of Seats:	See Note 11
Maximum Baggage:	Refer to Operators Manual USAF Model UH-1F, UH-1P, TH-1F Helicopters.
Maximum Passengers:	See Note 11
Fuel Capacity:	245 gallons total (3.0 unusable)
Oil Capacity:	5.4 gallons total (0.8 unusable)
Rotor Blade and 1P, Control Movement:	For rigging information, refer to USAF T.O. 1H-1(U)F-2-1 USAF Model UH-1F, UH-1P, TH-1F Helicopters.
Serial No's Approved:	The following USAF Model UH-1F, UH-1P, TH-1F Helicopters, serial numbers have been approved as of July 28, 2003: 66-1231, 66-1232, 66-1240, 66-1247. (66-1249 has been reported destroyed and is a total loss).
Certification Basis:	FAR 21.25(a)(2), effective February 1, 1965, including Amendments 21-1 through 21-71 for the special purpose of: (1) Agriculture Operations under FAR 21.25(b)(1) Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for agricultural operations excepted by FAR 36.1(a)(4) and defined under FAR 137.3.

(2) Forest and Wildlife Conservation Operations under FAR 21.25(b)(2).

Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for dispensing fire fighting materials excepted by FAR 36.1(a)(4) and defined under FAR 137.3

(2) External Load Operations under FAR 21.25(b)(7).

Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for external load operations excepted by FAR 36.1(a)(4) and defined under FAR 133.1(b)

Any alteration to the helicopter for Special Purposes not identified above require further FAA approval and in addition, may require additional noise and/or flight testing.

General Note: Any subsequent modifications to the helicopters type certified under this Type Certificate are to have the certification basis for that modification established under 14CFR 21.101 published June 7, 2000 which became effective June 10, 2003. Otherwise non-significant modifications are to meet the requirements of 14 CFR 29 airworthiness standards, transport category, Amendment 1, effective August 12, 1965, plus special conditions for turbine engine installations and 14 CFR 29.1529, Instructions for continued airworthiness, Amendment 20, effective September 11, 1980.

Date of Application: May 25, 1995. TC issued October 5, 1995.

Production Basis: None. No helicopters may be produced under this approval. Prior to adding serial numbers to this Type Certificate, each candidate helicopter must undergo a conformity inspection. The conformity inspection will be conducted in accordance with a Type Inspection Authorization, Part 1, or request for conformity that will include as a minimum, the inspections contained in the FAA Rotorcraft Directorate Restricted Category Conformity document dated September 25, 2001 or later FAA approved revisions.

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in or on each helicopter for certification. In addition, the following special purpose equipment and documents must be available in or on each helicopter for type certification and airworthiness certification:

- (a) U.S. Air Force T.O. 1H-1(U)F-1 Flight Manual, USAF Model UH-1F, UH-1P, TH-1F Helicopters.
- (b) Current Weight and Balance Report
- (c) U.S. Air Force cargo suspension system with FAA approved external cargo hook assembly installed on USAF Model UH-1F, UH-1P, TH-1F Helicopters as part of the military configuration.

Note 1: A current weight and balance report, USAF T.O. 1H-1(U)F-5S-5, including a list of equipment included in the certified empty weight, and loading instructions, when necessary, must be provided for each helicopter at the time of original certification. Refer to USAF T.O 1H-1(U)F-1, Operators Manual (see Section V for operational limits) USAF Model UH-1F, UH-1P and TH-1F Helicopters, and Aviation Unit and Intermediate Maintenance Instructions USAF Model UH-1F, UH-1P and TH-1F Helicopters for leveling means and weight and balance determination.

Note 2: The following placards must be prominently displayed in the cabin in clear view of the pilot:

Placard No. 1: THE HELICOPTER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE APPROVED HELICOPTER OPERATIONS MANUAL. REFER TO (USAF T.O. 1H-1(U)F-1, OPERATORS MANUAL USAF MODEL UH-1F, UH-1P and TH-1F HELICOPTERS, SECTION V OPERATING LIMITS AND RESTRICTIONS. THE IFR OPERATIONS SPECIFICATIONS IN THE MILITARY FLIGHT MANUAL DOES NOT APPLY. THIS HELICOPTER IS APPROVED FOR VFR OPERATIONS ONLY.

Placard No. 2: EXTERNAL LOAD OPERATIONS: V_{ne} WILL BE DETERMINED FOR EACH PROPOSED EXTERNAL LOAD APPLICATION.

Placard No. 3: "VFR Operations Only."

Note 3: These Helicopter must be maintained in accordance with USAF T.O. 1H-1(U)F-6, Organizational Maintenance and Inspection Program, or other FAA approved inspection programs. A copy of the documents must be available in or on each helicopter for type certification and airworthiness certification.

Note 4: In addition to the standard helicopter requirements, the following additional data and/or helicopter configuration requirements must be met for each individual Robinson Air Crane, Inc. USAF Model UH-1F, UH-1P and TH-1F Helicopters upon application for an original Special Airworthiness Certificate:

- (a) A completed Application for Airworthiness Certificate, FAA Form 8130-6 that has correctly identified the type certificate holder's helicopter and its intended special purpose(s).
- (b) Written confirmation from the certifying office that the affected serial number has been added to Robinson Air Crane, Inc. type certificate.
- (c) The application for airworthiness certification and the helicopter's registration certification match the information on Robinson Air Crane, Inc. data plate.
- (d) The conditions and limitations specified in Robinson Air Crane, Inc. Type Certificate Data Sheet R00008AT dated October 5, 1995 or later FAA approved revisions are met.

Note 5: This helicopter is prohibited from carrying cargo for compensation or hire. Carriage of cargo is limited to such cargo that is incidental to the helicopter owners/operator's business, which is other than air transportation.

Note 6: A restricted category helicopter may not be operated in a foreign country without the express written approval of that country.

Note 7: This helicopter has not been shown to meet the requirements of the applicable comprehensive and detailed Airworthiness Code as provided by Annex 8, to the Convention of the International Civil Aviation Organization.

Note 8: Military to Civil or Military to Military engine changes are allowed, provided the replacement engine is of the same make and model as identified in this TCDS. The military or civil replacement engine must have proper military or civil records and have the applicable FAA Airworthiness Inspection accomplished and is in an airworthy condition.

Note 9: The Airworthiness Directives for the helicopter and engine contained in Robinson Air Crane, Inc. Airworthiness Directive Report RAC-001 dated May 25, 1995 or later FAA approved, must be complied with prior to original airworthiness certification.

- (a) FAA Airworthiness Directives (AD's) and USAF Time Compliance Technical Order's (TCTO's) must be reviewed for applicability and complied with accordingly. TCTO's issued prior to the date of USAF T.O. 1H-1(U)F-2-1 will already be incorporated into the maintenance manual. Only those TCTO's issued after USAF T.O. 1H-1(U)F-2-1 need to be reviewed for applicability. (See Robinson Air Crane, Inc. Report RAC-001, dated May 25, 1995, or later FAA approved revision, for the list of applicable AD's and TCTO's for each approved serial number.)
- (b) Continued airworthiness of the UH-1F, UH-1P and TH-1F helicopters eligible under this TCDS is contingent upon compliance with all applicable FAA Airworthiness Directives. FAA and Manufacturer Airworthiness information for the Bell Helicopter Textron, Inc. Model 204/205 series helicopters, the General Electric CT-58 Military Model T-58-GE-3 engine, should be reviewed and complied with if any installed part number is affected by the information.

Note 10: Alternate and emergency fuels are listed in USAF T.O. 1H-1(U)F-1, Operators Manual UH-1F, UH-1P and TH-1F Helicopters. Some limitations apply for the use of certain alternative fuels. These limitations are listed in Operators Manual.

Note 11: No person may be carried in this helicopter during flight unless that person is essential to the purpose of the flight.

Note 12: Any alterations to the type design of this aircraft may require Instructions for Continued Airworthiness. If so, these instructions must be submitted and accepted by the FAA Fort Worth Aircraft Evaluation Group (FTW-AEG), prior to approval for return to service.

Note 13: Basic Aircraft must be modified as required by Robinson Air Crane, Inc. report RAC-002, dated May 25, 1995, or later FAA approved revision.

Note 14: Limited life schedule for helicopter components is included in USAF T.O. 1H-1(U)F-6.

.....End.....
